

AN ACA50276 DNA DGENE
TI New antisense nucleic acids, useful for identifying proteins or screening for homologous nucleic acids required for cellular proliferation to isolate candidate molecules for rational drug discovery programs -
IN Wang L; Zamudio C; Malone C; Haselbeck R; Ohlsen K L; Zyskind J W; Wall D; Trawick J D; Carr G J; Yamamoto R; Forsyth R A; Xu H H
PA (ELIT-N) ELITRA PHARM INC.
PI WO 2002077183 A2 20021003 999
AI WO 2002-US9107 20020321
PRAI US 2001-815242 20010321
US 2001-948993 20010906
US 2001-342923P 20011025
US 2002-72851 20020208
US 2002-362699P 20020306
PSL Claim 14; SEQ ID No 38146
DED 19 JUN 2003 (first entry)
DT Patent
LA English
OS 2003-029926 [02]
CR P-PSDB: ABU46406
DESC Prokaryotic essential gene #31933.
KW Antisense; ds; prokaryotic essential gene; cell proliferation; drug design; gene.
ORGN Streptococcus pyogenes.
AB The invention relates to an isolated nucleic acid comprising any one of the 6213 antisense sequences given in the specification where expression of the nucleic acid inhibits proliferation of a cell. Also included are: (1) a vector comprising a promoter operably linked to the nucleic acid encoding a polypeptide whose expression is inhibited by the antisense nucleic acid; (2) a host cell containing the vector; (3) an isolated polypeptide or its fragment whose expression is inhibited by the antisense nucleic acid; (4) an antibody capable of specifically binding the polypeptide; (5) producing the polypeptide; (6) inhibiting cellular proliferation or the activity of a gene in an operon required for proliferation; (7) identifying a compound that influences the activity of the gene product or that has an activity against a biological pathway required for proliferation, or that inhibits cellular proliferation; (8) identifying a gene required for cellular proliferation or the biological pathway in which a proliferation-required gene or its gene product lies or a gene on which the test compound that inhibits proliferation of an organism acts; (9) manufacturing an antibiotic; (10) profiling a compound's activity; (11) a culture comprising strains in which the gene product is overexpressed or underexpressed; (12) determining the extent to which each of the strains is present in a culture or collection of strains; or (13) identifying the target of a compound that inhibits the proliferation of an organism. The antisense nucleic acids are useful for identifying proteins or screening for homologous nucleic acids required for cellular proliferation to isolate candidate molecules for rational drug discovery programs, or for screening homologous nucleic acids required for proliferation in cells other than *S. aureus*, *S. typhimurium*, *K. pneumoniae* or *P. aeruginosa*. The present sequence is one of the target prokaryotic essential genes. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
NA 188 A; 101 C; 109 G; 139 T; 0 other
SQL 537
SEQ

```
1 atgtcacgta ttgtaataa agtaattact atgcctgcag gcgttgaatt
51 aacaaataac aacaatgtta ttactgttaa aggcctaaa ggcgaactca
101 ctgctgagtt caacaaaaat attgaaatca aagttgaagg gactgaaatc
151 acagttgtac gtcctaacga ctcaaaagaa atgaaaacaa tccatgggtac
201 aacccgtgct aacttgaata acatggttgt aggtgtttct gaaggtttca
251 aaaaagatct tgaaatgaag ggtgtcggtt accgtgctca acttcaaggt
```

301 actaaacttg tcctttcagt aggtaaactct caccaagacg aagttgaagc
351 tccagaagga attactttca ctggtgctaa cccaacttca atctcagttg
401 aaggaatcaa caaagaagtt gttggtcaaa cagctgctta catccgtagc
451 ttgcgttcac cagagcctta caaaggcaaa gggatccggt acgttggtga
501 atacgtacgc cttaaagaag gtaaaacagg taaataa